

REMARKS

Summary

Claims 1 and 3-20 were pending and all of the claims were rejected in the present Office action. Claim 1 has been amended and Claims 2-20 have been cancelled.

Claim Rejections

35 U.S.C. § 103 (a)

Claims 1 and 3-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sakai (US 5,966,052; "Sakai") in view of Hata et al. (US 6,383,835; "Hata"). Claim 1 has been amended to incorporate the subject matter of Claims 8 and 10.

Amended Claim 1 recites, *inter alia*, a circuit substrate having a wiring pattern arranged on an upper face connected to the side electrode, wherein said wiring pattern has a connecting conductor electrically connecting said side electrode and said electric part, and said connecting conductor contains multiple bends including a U-shaped bend between said electric part and said side electrode and said connecting conductor has a total bend of at least 180°.

Sakai is directed to an improved voltage-controlled oscillator and a means for manufacturing the same. External connections are provided through quadrant-line indentations (4a – 4d) in the corners and elliptical indentations (5a – 5e) in the sides. Conductive material is applied to these indentations, and extends to the top surface of the substrate, as is seen in Fig. 2, forming external terminals. The internal wiring is said to be connected to these terminals, although no details are shown. (Sakai, col. 3, line 51, bridging col. 4, line 12). The package has a metal case 6, having pegs 9, which are soldered to the ground terminals G1-G4 to provide shielding for the circuit. (Sakai, col. 5, lines 22-25). There is no teaching in Sakai as to the method of connecting the internal components to the external terminals or to the internal wiring. It is also noted that Sakai does not teach an environmentally sealed circuit.

Hata teaches a substrate having components mounted thereon, and being sealed with insulating resin (Hata, Abstract). The portion of the disclosure cited by the Examiner teaches that the length of the wiring pattern 2d is made longer to avoid corrosion caused by water infiltrating into the environmentally sealed package along the conductive wiring pattern. Since Sakai does not teach an environmentally sealed package, the Examiner has not explained how increasing the length of the wiring pattern 2b would avoid corrosion due to water infiltration in a non-environmentally sealed package. Absent such a showing, the Examiner has failed to make all of the required factual inquiries mandated by *Graham v. John Deere, Co.* 383 U.S. 1 (1966), and a *prima facie* case of obviousness has not been made out.

Moreover, Hata teaches that the end of the wiring pattern distal to the external terminals is wire bonded to the internal electronic components (Hata, Fig. 23). The wiring pattern taught by Hata does not connect directly to electronic components, but at least through a wire bond; the wire bond is not a solder connection; it is a wholly different connection technology.

In another aspect, neither of the references teaches that the U-shaped bend has a total bend of at least 180° as in the arrangement of Claim 1.

For at least the reasons given above, the combination of the two references does not teach all of the elements of Claim 1; therefore, a *prima facie* case of obviousness has not been made out.

Conclusion

Claim 1 is pending.

The Applicant respectfully submits that the application is in condition for allowance. The Examiner is respectfully requested to contact the undersigned in the event that a telephone interview would expedite consideration of the application.

Respectfully submitted,



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